

REMARKS

Claims 1, 9, 18, and 25 are currently amended. Applicant respectfully submits that the amendments contained herein are fully supported by the Specification as originally filed and do not contain new matter.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-13 and 17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Shimizu et al. (U.S. Patent No. 6,115,287). Claims 18-28 were rejected under 35 U.S.C. § 102(b) as being anticipated by Sakui et al. (U.S. Patent No. 6,411,548). Applicant respectfully traverses.

Claims 1 and 9, as currently amended, each recite forming a source slot and a drain contact using a single mask, where a portion of the drain contact region is formed directly over the drain select gate (claim 1) or a portion of the drain contact region directly overlies the drain select gate (claim 9) and where the single mask defines areas for exposing the substrate. In Shimizu et al. (Figure 13C and column 17, lines 41-52), an interlayer insulation film 20 is formed on an entire surface of a substrate including a control gate electrode 17. A source line 24 is formed on the film 20. A source line contact portion 25 is formed in a contact hole provided in the interlayer insulation film 20. An interlayer insulation film 26 is formed on the entire surface of the film 20 including the source line 24. A bit line 27 is formed on the interlayer insulation film 26. A bit line contact portion 28 for connecting the bit line 27 and the drain diffusion layer 18-D is formed in a contact hole provided in the interlayer insulation films 20 and 26. This means that the contact hole provided in the interlayer insulation film 20 in which contact portion 25 is formed and the contact hole provided in the interlayer insulation films 20 and 26 in which bit line contact portion 28 is formed are formed using separate steps requiring separate masks, which is different from claim 1 or 9. Moreover, bit line contact portion 28 does not include any portion that directly overlies gate electrode SGD, which is different from claim 1 or 9. Therefore, Shimizu et al. does not include each and every recitation of claim 1 or 9, so claims 1 and 9 should be allowed.

Claims 2-8 depend from claim 1 and are thus allowable for at least the same reasons as claim 1. Claims 10-13 and 17 depend from claim 9 and are thus allowable for at least the same reasons as claim 9. Therefore claims 2-8, 10-13, and 17 should be allowed.

Claims 18 and 25, as currently amended, each recite forming a source slot and a drain contact using a single mask, where a portion of the drain contact region directly overlies the drain select gate, and removing a dielectric layer from the substrate within the source slot and drain contact region to expose the substrate. Sakui et al. includes a contact hole 30d (Figure 12) reaching the drain region 28d. No portion of contact hole 30d is formed directly overlying gate electrode (or select gate line) 27(SSL). In Figure 44, a contact plug 31d is formed in the contact hole 30d and is connected to an intermediate layer 33d that is connected to bit line 36(BL) through a contact plug 32d. Sakui et al. also includes a source line 33(SL) connected to a contact plug 31s formed in a contact hole 30s. However, formation of intermediate layer 33d requires a different step than the formation of contact plugs 31s and 31d. This means that Sakui et al. does not form contact holes 30s and 30d and a region directly overlying gate electrode (or select gate line) 27(SSL) using a single mask layer. Therefore, Sakui et al. does not recite each and every element of claim 18 or 25, so claims 18 and 25 should be allowed.

Claims 19-24 depend from claim 18 and are thus allowable for at least the same reasons as claim 18. Claims 26-28 depend from claim 25 and are thus allowable for at least the same reasons as claim 25. Therefore claims 19-24 and 26-28 should be allowed.

Claim Rejections Under 35 U.S.C. § 103

Claims 14-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimizu et al. Applicant respectfully traverses.

Claim 9, as currently amended, is patentably distinct from Shimizu et al. without relying on specific materials. Claims 14-16 depend from claim 9 and are thus allowable for at least the same reason as claim 9. Therefore, claims 14-16 should be allowed.

Allowable Subject Matter

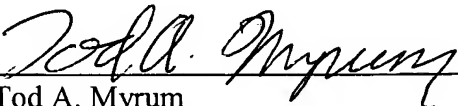
Applicant acknowledges that claims 42-62 were allowed.

CONCLUSION

In view of the above remarks, Applicant believes that the claims are in condition for allowance and respectfully requests a Notice of Allowance be issued in this case. If the Examiner has any questions regarding this application, please contact the undersigned at (612) 312-2208.

Respectfully submitted,

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